LPDES PERMIT NO. LA0004057, AI No. 3387

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. **Company/Facility Name:** Novolyte Technologies, Inc.
Baton Rouge Site
111 West Irene Road
Zachary, Louisiana 70791

II. **Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

III. **Prepared By:** Jenniffer Sheppard
Industrial Permits Section
Water Permits Division
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Date Prepared: November 20, 2008

IV. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed reissuance of an existing Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46*.

* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.2301, 4901, and 4903.

B. NPDES permit - NPDES permit effective date: NA.
NPDES permit expiration date: NA.
EPA has not retained enforcement authority.

C. LPDES permit - LPDES permit effective date: November 1, 2003.
LPDES permit expiration date: October 31, 2008.

LPDES permit modification effective date: October 3, 2003.

D. Application received on May 5, 2008. Additional information received on July 28, 2008, October 16, 2008, October 31, 2008, January 15, 2009, and via e-mail on November 24, 2008.

V. **Facility Information:**

A. Location - 111 West Irene Road in Zachary.

B. Applicant Activity -

According to the application, Novolyte Technologies, Inc. (formerly known as Ferro Corporation), Baton Rouge Site, is a specialty manufacturing facility of organic and inorganic chemicals for industrial use. The facility manufactures 1,4-dioxane, 1,3-dioxolane, metal stearates, non-aqueous electrolytes, aryl phosphorus compounds, various glycol ethers and diethers, and aromatic carboxylic acids.

C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline	Reference
Organic Chemicals, Plastics, and Synthetic Fibers	40 CFR 414, Subpart(s) G, H, and I
Process Flow -	0.125 MGD
Inorganic Chemicals-Hydrochloric Acid Production Subcategory	40 CFR 415, Subpart G [Reserved]

Other sources of technology based limits:
LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).
Multi-Sector General Permit, LAR050000.
Best Professional Judgment.

D. Fee Rate -
1. Fee Rating Facility Type: major
2. Complexity Type: VI
3. Wastewater Type: II
4. SIC code(s): 2869 and 2819

E. Continuous Facility Effluent Flow - 0.1985 MGD.

VI. **Receiving Waters:** Mississippi River via pipeline (Outfall 001) and Bayou Baton Rouge via local drainage (Outfalls 002 and 003)

Bayou Baton Rouge (Outfalls 002 and 003)
1. River Basin: Mississippi River, Segment No. 070203
2. Designated Uses:
The designated uses are primary contact recreation, secondary contact recreation, and fish and wildlife propagation.

Mississippi River (Outfall 001)
1. TSS (15%), mg/L: 53.25
2. Average Hardness, mg/L $CaCO_3$: 153.7
3. Critical Flow, cfs: 141,955
4. Mixing Zone Fraction: 0.3333
5. Harmonic Mean Flow, cfs: 366,748
6. River Basin: Mississippi River, Segment No. 070201
7. Designated Uses:
The designated uses are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply.

Information based on the following: LAC 33:IX Chapter 11;/Recommendation(s) from the Engineering Section. Hardness and 15% TSS data come from monitoring station 318 at the LA 10 ferry landing on the Mississippi River south of St. Francisville listed in Hardness and TSS Data for All LDEQ Ambient Stations for the Period of Record as of March 1998, LeBlanc. This information was presented in a memorandum from Todd Franklin to Jenniffer Sheppard dated November 13, 2008 (See Appendix C).

VII. Outfall Information:

Outfall 001

A. Type of wastewater - the continuous discharge of commingled discharges from Internal Outfalls 101 and 201.

B. Location - at the point of discharge near the twin 80,000 gallon River Tanks (TP 2121A and TP 2121B), prior to being conveyed by the four mile pipeline to the Mississippi River, at Latitude 30°36'40", Longitude 90°13'59".

C. Treatment - No further treatment (See Internal Outfalls).

D. Flow - Continuous, (Max 30-Day) 0.1985 MGD.

Internal Outfall 101 - 0.1765 MGD
Internal Outfall 201 - 0.0220 MGD

E. Receiving waters - Mississippi River via pipeline.

F. Basin and segment - Mississippi River Basin, Segment 070201.

Internal Outfall 101

A. Type of wastewater - the continuous discharge of treated process wastewater and process area stormwater from the following areas: glycol ethers, DXA/DLA/organic carbonates, petroleum additive & catalyst, aryl phosphorus compounds, HPU, and metal stearates; utility wastewaters including but not limited to boiler blowdown and condensate, cooling tower blowdown, and once through cooling water; sanitary wastewater; and treated groundwater remediation water.

B. Location - at the point of discharge after the treated process wastewaters have commingled with the treated groundwater, prior to entry into the 80,000 gallon twin River Tanks (TP 2121A and TP 2121B) and discharge through Final Outfall 001, at Latitude 30°36'40", Longitude 91°13'53".

C. Treatment - treatment of process wastewaters consists of:
- neutralization
- equalization
- sedimentation
- aerobic digestion (activated sludge)
- clarification

D. Flow - Continuous Flow 0.1765 MGD.

Process Wastewater*	0.125 MGD
Utility Wastewater*	0.045 MGD
Sanitary Wastewater*	0.005 MGD
Miscellaneous Wastewater*	0.0015 MGD

* Specific component waste streams are defined at Appendix A-1.

E. Receiving waters - Mississippi River via Final Outfall 001.

F. Basin and segment - Mississippi River Basin, Segment 070201.

Internal Outfall 201

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater runoff from the Clean Storm Tank (TP 2126A).

B. Location - at the point of discharge from the Clean Storm Tank (TP 2126A) prior to entry into the 80,000 gallon twin River Tanks (TP 2121A and TP 2121B) and discharge through Final Outfall 001, at Latitude 30°36'40", Longitude 91°13'53".

C. Treatment - None

D. Flow - Intermittent

E. Receiving waters - Mississippi River via Final Outfall 001.

F. Basin and segment - Mississippi River Basin, Segment 070201.

Outfall 002

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater from laydown areas, undeveloped areas, and roadways.

B. Location - near the southeast part of the facility near the fence, prior to discharging to an unnamed ditch and tributary of Bayou Baton Rouge, at Latitude 30°36'39", Longitude 91°13'48".

C. Treatment - Equalization.

D. Flow - Intermittent.

E. Receiving waters - Bayou Baton Rouge via local drainage.

F. Basin and segment - Mississippi River Basin, Segment 070203.

Outfall 003

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater from the main office area and employee parking lot.

B. Location - located near the eastern part of the facility near the emergency response vehicle parking area, prior to discharging to an unnamed ditch and tributary of Bayou Baton Rouge, at Latitude 30°36'44", Longitude 91°13'51".

C. Treatment - None.

D. Flow - Intermittent.

E. Receiving waters - Bayou Baton Rouge via local drainage.

F. Basin and segment - Mississippi River Basin, Segment 070203.

VIII. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

Summary of Proposed Changes From the Current LPDES Permit:

A. Internal Outfall 101 - BOD_5 and TSS were calculated in accordance with the OCPSF Guideline concentrations at 40 CFR Part 414, with 48% of the production covered under Subpart G and 52% production under Subpart H. This renewal reflects a change to the percent of production from the current LPDES Permit effective on November 1, 2003 which was based on 72% of the production for Subpart G and 28% production for Subpart H. These changes result in higher BOD_5 and TSS OCPSF limitations at the outfalls.

B. Internal Outfall 101 - A Part II requirement (see LPDES permit, Part II.I) has been added requiring the permittee to compile and submit a summary report of DMR results for BOD_5 and TSS at Internal Outfall 101 for evaluation, consisting of 2 years of DMR data starting on the effective date of the permit. The summary report is due 90 days after completion of data collection (approximately 2 years and 90 days after the effective date of the permit).

C. Outfalls 002 and 003 - a monitor and report only requirement for Total Lead has been established due to a 303(d) impairment at Subsegment 070203. This requirement is based on best professional judgment and will be used for data gathering purposes for possible future TMDL development.

IX. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS, CONDITIONS, AND MONITORING REQUIREMENTS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgment) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII. Regulations also require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48(b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I./40 CFR 122.44(I)].

1. Outfall 001 (Internal Outfalls 101 and 201) - Process Wastewaters & Stormwater

***Outfall 001** - the continuous discharge of commingled discharges from Internal Outfalls 101 and 201.

The following requirements have been established for these discharges.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, µG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/discharge
pH, Standard Units	---	---	6.0 (min)	9.0 (max)	1/discharge

Site-Specific Consideration(s) for Outfall 001

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. and shall be estimated 1/discharge. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

pH - established in accordance with LAC 33:IX.1113.C.1. pH has been established at 6.0 to 9.0 s.u. and shall be monitored 1/discharge. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

***Internal Outfall 101** - the continuous discharge of treated process wastewater and process area stormwater from the following areas: glycol ethers, DXA/DLA/organic carbonates, petroleum additive & catalyst, aryl phosphorus compounds, HPU, and metal stearates; utility wastewaters including but not limited to boiler blowdown and condensate, cooling tower blowdown, and once through cooling water; sanitary wastewater; and treated groundwater remediation water.

Novolyte Technologies, Inc., Baton Rouge Site is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Organic chemical manufacturing	40 CFR 414, Subpart(s) G, H, and I.

Subpart G = Bulk Organic Chemicals makes up 48% of the production at Novolyte Technologies, Inc., Baton Rouge Site.

Subpart H = Specialty Organic Chemicals makes up 52% of the Production at Novolyte Technologies, Inc., Baton Rouge Site.

Subpart I = Direct Discharge Point Sources That Use End-Of-Pipe Biological Treatment.

Inorganic chemical manufacturing 40 CFR 415, Subpart G [Reserved].

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, µG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	Continuous
BOD_5	45	117	---	---	2/week
TSS	61	188	---	---	2/week
Acrylonitrile	0.100	0.252	---	---	1/year
Benzene	0.039	0.142	---	---	2/month
Carbon Tetrachloride	0.019	0.040	---	---	1/year
Chlorobenzene	0.016	0.029	---	---	1/year
Chloroethane	0.108	0.279	---	---	1/year
Chloroform	0.022	0.048	---	---	1/year
1,1-Dichloroethane	0.023	0.062	---	---	1/year
1,2-Dichloroethane	0.071	0.220	---	---	1/year
1,1-Dichloroethylene	0.017	0.026	---	---	1/year
1,2-trans-Dichloroethylene	0.022	0.056	---	---	1/year
1,2-Dichloropropane	0.160	0.240	---	---	1/year
1,3-Dichloropropylyene	0.030	0.046	---	---	1/year
Ethylbenzene	0.033	0.113	---	---	1/year
Methyl Chloride	0.090	0.198	---	---	2/month
Methylene Chloride	0.042	0.093	---	---	1/year
Tetrachloroethylene	0.023	0.058	---	---	1/year
Toluene	0.027	0.083	---	---	2/month

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, µG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
1,1,1-Trichloroethane	0.022	0.056	---	---	1/year
1,1,2-Trichloroethane	0.022	0.056	---	---	1/year
Trichloroethylene	0.022	0.056	---	---	1/year
Vinyl Chloride	0.108	0.279	---	---	1/year
2-Chlorophenol	0.032	0.102	---	---	1/year
2,4-Dichlorophenol	0.041	0.117	---	---	1/year
2,4-Dimethylphenol	0.019	0.038	---	---	1/year
4,6-Dinitro-o-Cresol	0.081	0.289	---	---	1/year
2,4-Dinitrophenol	0.074	0.128	---	---	1/year
2-Nitrophenol	0.043	0.072	---	---	1/year
4-Nitrophenol	0.075	0.129	---	---	1/year
Phenol	0.016	0.027	---	---	1/year
Acenaphthene	0.023	0.062	---	---	1/year
Acenaphthylene	0.023	0.062	---	---	1/year
Anthracene	0.023	0.062	---	---	1/year
Benzo (a) anthracene	0.023	0.062	---	---	1/year
Benzo (a) pyrene	0.024	0.064	---	---	1/year
3,4-Benzofluoranthene	0.024	0.064	---	---	1/year
Benzo(k)fluoranthene	0.023	0.062	---	---	1/year
Bis(2-ethylhexyl)phthalate	0.107	0.291	---	---	1/year
Chrysene	0.023	0.062	---	---	1/year
1,2-Dichlorobenzene	0.080	0.170	---	---	1/year
1,3-Dichlorobenzene	0.032	0.046	---	---	1/year

PARAMETER(S)	MASS, LBS/DAY, unless otherwise stated		CONCENTRATION, µG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
1,4-Dichlorobenzene	0.016	0.029	---	---	1/year
Diethyl phthalate	0.084	0.212	---	---	1/year
Dimethyl phthalate	0.020	0.049	---	---	1/year
Di-n-butyl phthalate	0.028	0.059	---	---	1/year
2,4-Dinitrotoluene	0.118	0.297	---	---	1/year
2,6-Dinitrotoluene	0.266	0.668	---	---	1/year
Fluoranthene	0.026	0.071	---	---	1/year
Fluorene	0.023	0.062	---	---	1/year
Hexachlorobenzene	0.016	0.029	---	---	1/year
Hexachlorobutadiene	0.021	0.051	---	---	1/year
Hexachloroethane	0.022	0.056	---	---	1/year
Naphthalene	0.023	0.062	---	---	1/year
Nitrobenzene	0.028	0.071	---	---	1/year
Phenanthrene	0.023	0.062	---	---	1/year
Pyrene	0.026	0.070	---	---	1/year
1,2,4-Trichlorobenzene	0.071	0.146	---	---	1/year

Calculations and basis of permit limitations are found at Appendix A and associated appendices. See below for site-specific considerations.

Site-Specific Consideration(s) for Internal Outfall 101

Flow - established in accordance with LAC 33:IX.2707.I.1.b. and retained from the current LPDES permit effective on November 1, 2003. The continuous monitoring frequency has also been retained.

BOD_5 and TSS - monthly average and daily maximum limitations established in accordance with OCPSF Guidelines under 40 CFR

414, Subpart G for Bulk Organic Chemicals and Subpart H for the Specialty Organic Chemical Subcategory with 0.125 MGD of process wastewater. Additionally, allocations were granted for sanitary wastewater, miscellaneous wastewater, and utility wastewaters based on best professional judgment. Sanitary allocations have been applied to a flow of 0.005 MGD and were based on a 30 mg/L monthly average concentration and 40 mg/L daily maximum concentration for BOD_5 and TSS. Miscellaneous wastewater allocations have been applied to a flow of 0.0015 MGD and were based on a 5 mg/L monthly average concentration and 10 mg/L daily maximum concentration for BOD_5 and a 10 mg/L monthly average concentration and 20 mg/L daily maximum concentration for TSS. Utility wastewater allocations have been applied to a flow of 0.045 MGD and were based on a 5 mg/L monthly average concentration and 10 mg/L daily maximum concentration for BOD_5 and a 10 mg/L monthly average concentration and 20 mg/L daily maximum concentration for TSS. The monitoring frequencies of 2/week have been retained from the current LPDES permit, effective on November 1, 2003.

Benzene, Methyl Chloride, and Toluene - limitations established in accordance with OCPSF Guidelines under 40 CFR 414, Subpart I for direct discharge point sources that use end-of-pipe biological treatment. A monitoring frequency of 2/month has been retained from the current LPDES permit effective on November 1, 2003.

Acrylonitrile, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloroform, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethylene, 1,2-trans-Dichloroethylene, 1,2-Dichloropropane, 1,3-Dichloropropylene, Ethylbenzene, Methylene Chloride, Tetrachloroethylene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, 2-Chlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 4,6-Dinitro-o-cresol, 2,4-Dinitrophenol, 2-Nitrophenol, 4-Nitrophenol, Phenol, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, 3,4-Benzofluoranthene, Benzo(k)fluoranthene, Bis(2-ethylhexyl)phthalate, Chrysene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, Naphthalene, Nitrobenzene, Phenanthrene, Pyrene, 1,2,4-Trichlorobenzene - limitations established in accordance with OCPSF Guidelines under 40 CFR 414, Subpart I for direct discharge point sources that use end-of-pipe biological treatment. A monitoring frequency of 1/year has been retained from the current LPDES permit effective on November 1, 2003. This frequency is

appropriate since these pollutants are not expected to be on site.

* **Internal Outfall 201** - the intermittent discharge of low contamination potential stormwater runoff from the Clean Storm Tank (TP 2126A).

Uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
TOC	---	---	---	50	1/month
Oil & Grease	---	---	---	15	1/month

Site-Specific Consideration(s) for Internal Outfall 201

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. and shall be estimated 1/month. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

TOC and Oil & Grease - daily maximum limitations of 50 mg/L for TOC and 15 mg/L for Oil & Grease have been established based on best professional judgment. These limitations are consistent with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the requirements of the Multi-Sector General Permit for Industrial Stormwater Discharges, LAR050000. The 1/month monitoring frequencies were retained from the current LPDES permit, effective on November 1, 2003.

2. Outfall(s) 002 and 003 - Stormwater

***Outfall 002** - the intermittent discharge of low contamination potential stormwater from laydown areas, undeveloped areas, and roadways.

Uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
TOC	---	---	---	50	1/month
Oil & Grease	---	---	---	15	1/quarter
Total Lead	---	---	---	Report	1/quarter
pH, Standard Units	---	---	6.0 (min)	9.0 (max)	1/quarter

Site-Specific Consideration(s) for Internal Outfall 002

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. and shall be estimated 1/month. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

TOC - a daily maximum limitation of 50 mg/L has been established based on best professional judgment. This limitation is consistent with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the requirements of the Multi-Sector General Permit for Industrial Stormwater Discharges, LAR050000. The 1/month monitoring frequency has been retained from the current LPDES permit, effective on November 1, 2003.

Oil & Grease - a daily maximum limitation of 15 mg/L has been established based on best professional judgment. This limitation is consistent with this Office's guidance on

stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the requirements of the Multi-Sector General Permit for Industrial Stormwater Discharges, LAR050000. The 1/quarter monitoring frequency has been retained from the current LPDES permit, effective on November 1, 2003.

Total Lead - a quarterly monitor and report only requirement for Total Lead has been established due to a 303(d) impairment at Subsegment 070203. This requirement is based on best professional judgment and will be used for data gathering purposes for possible future TMDL development.

pH - established in accordance with LAC 33:IX.1113.C.1. pH has been established at 6.0 to 9.0 s.u. and shall be monitored 1/quarter. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

***Outfall 003** - the intermittent discharge of low contamination potential stormwater from the main office area and employee parking lot.

Uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
TOC	---	---	---	50	1/quarter
Oil & Grease	---	---	---	15	1/quarter
Total Lead	---	---	---	Report	1/quarter
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/quarter

Site-Specific Consideration(s) for Internal Outfall 003

Flow - Established in accordance with LAC 33:IX.2707.I.1.b. and shall be estimated 1/month. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

TOC and Oil & Grease - daily maximum limitations of 50 mg/L for TOC and 15 mg/L for Oil & Grease have been established based on best professional judgment. These limitations are consistent with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the requirements of the Multi-Sector General Permit for Industrial Stormwater Discharges, LAR050000. The 1/quarter monitoring frequencies have been retained from the current LPDES permit, effective on November 1, 2003.

Total Lead - a quarterly monitor and report only requirement for Total Lead has been established due to a 303(d) impairment at Subsegment 070203. This requirement is based on best professional judgment and will be used for data gathering purposes for possible future TMDL development.

pH - established in accordance with LAC 33:IX.1113.C.1. pH has been established at 6.0 to 9.0 s.u. and shall be monitored 1/quarter. These requirements have been retained from the current LPDES permit, effective on November 1, 2003.

Other Requirements Applicable to All Stormwater

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance,** the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance,** the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES

and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix B.

In accordance with LAC 33:IX.2707.D.1/40 CFR § 122.44(d)(1), the existing (or potential) discharge (s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix B.

The following pollutants received water quality based effluent limits:

POLLUTANT(S)
None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

TMDL Waterbodies

Outfall 001

The discharges from Outfall 001 include treated process wastewater and process area stormwater from the following areas: glycol ethers, DXA/DLA/organic carbonates, petroleum additive & catalyst, aryl phosphorus compounds, HPU, and metal stearates; utility wastewaters including but not limited to boiler blowdown and condensate, cooling tower blowdown, and once through cooling water; sanitary wastewater; treated groundwater remediation water; and low contamination potential stormwater runoff are to Mississippi River via a pipeline, Segment No. 070201. The Mississippi River is not listed on the 2006

Final Integrated Report as being impaired. Therefore, no additional requirements have been established in this permit.

Outfalls 002 and 003

The discharges from Outfalls 002 and 003 include low contamination potential stormwater runoff and discharge to Bayou Baton Rouge via local drainage and is listed on the 303(d) report as being impaired with priority organics, lead, oil & grease, non-priority organics, nitrate/nitrite, organic enrichment/low DO, pathogen indicators, turbidity, and phosphorus. A TMDL is scheduled to be completed by March 2010-2011.

Priority Organics and Nonpriority Organics

The discharges from Outfalls 002 and 003 are not reasonably expected to cause or contribute to further priority and nonpriority organic impairments in the receiving stream. This determination was based on the type of discharge from these outfalls and from analytical results included in the May 5, 2008 LPDES renewal application.

Lead

Based on the type of discharges at this outfall, total lead is not reasonably expected to be present in the discharges. However, a monitor and report only requirement has been established for data gathering purposes to aid in future TMDL development.

Oil & Grease

A daily maximum limit of 15 mg/l for Oil and Grease is imposed at both stormwater outfalls. This limitation is consistent with the requirements of the Multi-Sector General Permit for stormwater discharges and considered protective of waters of the state.

Nitrate/Nitrite, Organic Enrichment/Low DO, and Phosphorus

The types of wastewaters permitted to discharge from Outfalls 002 and 003 do not have a history of causing or contributing to ambient DO and nutrient impairments. DO and nutrient impairments are typically attributed to improperly operated on-site domestic wastewater treatment systems, decentralized wastewater treatment, fill/drainage, crop production and unsewered residential districts. Additionally, no LDEQ finalized TMDL recognizes non-process waste streams, such as those consisting mainly of stormwater, as point source contributors to DO and nutrient impairments where TMDLs have been established for these impairments.

However, in an effort to address the impairments during the development of the draft permit, TOC monitoring has been identified as a means of measuring organic materials in a discharge. Given the types of discharges and the suspected cause of the impairments, this Office has determined that it is appropriate to retain the 50 mg/L daily maximum limitation for TOC on these outfalls as an indicator

parameter to monitor the organic constituents in the waste stream. The TOC limitation was originally established using stormwater guidance, in a letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and has been used in water discharge permits for similar types of discharges for 20 years and considered protective of waters of the state.

Pathogen Indicators

Pathogen Indicator Impairments are typically associated with discharges of sanitary wastewater. Since these outfalls contain low contamination potential stormwater only, LDEQ has determined that there is no reasonable potential for the stormwater discharges to cause further pathogen indicator impairments in the recieving waterbody. Therefore, no additional requirements have been added to the permit.

Turbidity

Turbidity impairments are typically caused by areas with disturbed soils associated with construction activities. Outfalls 002 and 003 are existing outfalls with no areas under construction and/or requested changes from the current LPDES permit, effective on November 1, 2003. Therefore, these discharges are not reasonably expected to cause or contribute to further turbidity impairments. No additional requirements have been added to the permit.

Site-Specific Consideration(s)

None

D. Biomonitoring Requirements

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream: The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall(s) 001 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using Daphnia pulex	1/year
Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	1/year

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 0.003%, 0.004%, 0.005%, 0.007%, and

0.009%. The low-flow effluent concentration (critical dilution) is defined as 0.007% effluent.

X. Compliance History/DMR Review:

A Compliance History and DMR Review has been completed for Novolyte Technologies, Inc. / Baton Rouge Site covering the time frame of November 1, 2005 through November 1, 2008.

A. DMR Review - the following excursion were reported during the above mentioned time frame:

DATE	PARAMETER	OUTFALL	REPORTED VALUE		PERMIT LIMITS	
			MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
11/30/05	BOD_5	101	---	182 lbs/day	---	116 lbs/day
11/30/05	TSS	101	84 lbs/day	222 lbs/day	61 lbs/day	192 lbs/day
12/31/05	BOD_5	101	50 lbs/day	---	44 lbs/day	---
12/31/05	TSS	101	---	63 lbs/day	---	61 lbs/day
9/30/06	pH	002	---	9.4 s.u.	---	9.0 s.u.
9/30/06	TSS	101	104 lbs/day	253 lbs/day	61 lbs/day	192 lbs/day
1/31/07	TOC	201	---	110 mg/L	---	50 mg/L
2/28/07	TOC	002	---	98 mg/L	---	50 mg/L
2/28/07	BOD_5	101	86 lbs/day	231 lbs/day	44 lbs/day	116 lbs/day
3/31/07	BOD_5	101	83 lbs/day	200 lbs/day	44 lbs/day	116 lbs/day
2/29/08	BOD_5	101	---	121 lbs/day	---	116 lbs/day

B. Inspection - The inspector noted the following items during the LPDES Compliance Inspection on November 18, 2005:

1. Facility Site Review - Considerable stearic acid spillage (solid, white material) was noted around a train tank car. The material solidified upon release. Cleanup was underway.

2. Effluent/Receiving Waters - May through September, 2005, DMR's were reviewed. Facility reported five BOD_5 exceedances and a single TSS exceedance during September. Exceedances were attributed to the wastewater treatment system operating at < 50 % capacity due to a major treatment system expansion that began in August, 2005.

3. Operations & Maintenance - The wastewater treatment plant clarifier scum pit drain was clogged, causing an accumulation of solids in the pit. The clarifier sludge return line for STP number three was not operating.

4. Pollution Prevention - Facility did not have a Stormwater Pollution Prevention Plan at the time of inspection. A draft plan has since been formulated - facility working with PPM Consultants. Plan scheduled for finalization by December 15, 2005.

C. Enforcement - Compliance Order and Notice of Potential Penalty, WE-CN-07-0258, was issued on August 30, 2007. The following Findings of Fact were noted:

1. Multiple areas of concern noted regarding operations and maintenance during the March 21, 2002 inspection.

2. Unauthorized discharge of a pollutant not authorized by the LPDES permit reported on September 23, 2003, April 13, 2004, and July 12, 2007.

3. No continuous monitor of flow as required by the LPDES permit.

4. Inaccuracies in DMR reporting for Outfall 002 during the 1st quarter of 2004 and Outfall 003 during the 4th quarter of 2003 and 2nd quarter of 2004.

5. Unauthorized discharge of treated wastewater on October 6, 2004.

6. Multiple effluent violations between June 30, 2000 through March 31, 2007. Specifically, there were 28 excursions for BOD_5, 1 for hexachloroethane, 1 for 2,4-dinitrophenol, and 10 for TSS at Internal Outfall 101, there were 2 TOC excursions

at Internal Outfall 201, and 1 pH and 2 TOC excursions at Outfall 002.

7. Failure to sample Outfall 101 for the monitoring period of November 2003 through December 2003 and TX1 for the monitoring period of January 1, 2005 through December 31, 2005.

XI. "IT" Questions

This applicant is not required to submit "IT" Questions in accordance with La. R.S. 30:2018(A).

XII. Endangered Species:

The receiving waterbody for Outfall 001, Subsegment 070201 of the Mississippi River Basin has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the pallid sturgeon which is listed as an endangered species. This draft permit has been submitted to the FWS for review in accordance with a letter dated 11/17/08 from Rieck (FWS) to Nolan (LDEQ). The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

The receiving waterbody for Outfalls 002 and 003, Subsegment 070203 of the Mississippi River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS).

XIII. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XIV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

XV. Variances:

No requests for variances have been received by this Office.

XVI. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List